REMARKS/ARGUMENTS

Status Of The Claims

The 2nd Office Action dated October 6, 2003, has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present invention in condition for allowance. In the present amendment, Claims 1, 22, 33, 36 and 39 have been amended, all of which amendments find support in the specification as filed or amended. Claims 1, 11-15, 17-22, 24-25, 27-29, and 33-40 remain in the application for consideration. Reconsideration and allowance of all remaining claims is respectfully requested.

Formal Matters

In the 1st Office Action, the Examiner allowed the subject matter of Claim 15. In the 2nd Office Action, the Examiner suggested that Claims 33, 39 and 40 are provisionally allowed provided the 35 U.S.C. §112 rejections are obviated (see below). The objection of Claims 16, 26, 32, 30 and 33 is withdrawn. The rejection of Claims 11 and 22-32 under 35 U.S.C. 112, second paragraph, is withdrawn. The rejection of Claims 1, 11 and 16-18 under 35 U.S.C. 102(b) as being anticipated by Ahmed et al, U.S. Patent No. 5, 108,641, is withdrawn.

Rejections Under 35 U.S.C. § 112

Claims 33, 39 and 40 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended both the specification and Claims 1, 22, 33, 36, and 39 to define and clarify the specific colors presented. Although the Applicants feel that the amendment to the specification is unnecessary due to the fact that the visible light spectrum and corresponding frequencies of color have been known for at least 150 years, and, are available in most elementary physics textbooks, the Applicants have followed the Examiner's suggestion by amending the specification to define specific ranges in wavelengths for specific colors (see Appendix I). Thus, the colors presented in amended Claims 1, 22, 33, 36, and Claim 39, from which Claim 40 depends, are defined in terms of wavelengths. For the antecedent basis of the amended specification, the Applicants cite the inherent properties of light and color. The Federal Circuit has found that "[t]he disclosure in a subsequent patent application of an inherent property of a product does not deprive that product of the benefit of an earlier filing date. Nor does the inclusion of a description of that property in later-filed claims change this reasonable result." (see *Kennecott Corp. v. Kyocera Intn'l*, 835 F.2d 1419, 5 USPQ2d 1194 (Fed. Cir. 1987). Accordingly, reconsideration is respectfully requested.

Rejections Under 35 U.S.C. § 102

Rejections Under 35 U.S.C. § 102

1) **Claims 1, 11, 12 ,17, 19-22, 24 and 27 are rejected under 35 U.S.C. §102(e) as being anticipated by Maguire, Jr. et al. (hereinafter "Maguire") , U.S. Patent No. 4,090,973.**

The Examiner has asserted that Maguire teach a method for preparing a liquid dishwashing detergent comprising adding an encapsulated detergent component to a liquid detergent composition. However, as will be set forth in detail below, it is submitted that the processes and products defined by independent Claims 1 and 22, as amended, from which Claims 11-12, 17, 19-21, 24 and 27 depend are not anticipated by Maguire. Accordingly, reconsideration is respectfully requested.

As defined by Claim 1, from which Claims 11-12, 17, and 20-21 depend, the present invention is directed to a process of improving aesthetics of a liquid dishwashing detergent product comprising the steps of providing a liquid dishwashing detergent composition and adding solid particles to the liquid dishwashing detergent composition. The present invention is also directed to the liquid dishwashing detergent product, as defined by Claim 22, from which Claims 24 and 27 depend. Both the polymeric coating and the liquid automatic dishwashing composition of the processes and product described above comprise observed color with or without whitening selected from the group consisting of blue, blue-green, green, yellow, white, and combinations thereof. Both the polymeric coating itself, as discussed in the prior amendment, and the color combinations with or without whitening of the polymeric coating and the liquid detergent composition, as defined in the present amended claims, provide an inexpensive yet effective manner for improving product aesthetics.

There is no teaching by Maguire of enhanced aesthetics utilizing coated particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F3d 1376, 1383, 58 U.S.P.Q.2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). In accordance with the above cited law, Maguire do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 22, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 22, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Maguire, and the rejection of claims 1, 11-12, 17, 19-22, 24 and 27 under 35 U.S.C. § 102(b) has been overcome. Reconsideration is respectfully requested.

2) **Claims 1, 11-14, 16-28 and 31-32 ar r jected under 35 U.S.C. § 102(b) as being**

anticipated by Arons n et al (hereinafter referred to as "Aronson"), WO 93/22417.

The Examiner asserted that Aronson disclose a liquid detergent composition that contains a capsule including a detergent sensitive ingredient. However, as will be set forth in detail below, it is submitted that the processes and products defined by Claims 1 and 22, as amended, from which Claims 11-14, 16-21, 23-28 and 31-32 depend, are not anticipated by Aronson. Accordingly, reconsideration is respectfully requested.

The Applicants find no teaching by Aronson of the processes or products defined by independent Claims 1 and 22, as amended, respectively. That is, there is no teaching by Aronson of enhanced aesthetics utilizing coated particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. In accordance with the above cited law, Aronson do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 22, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 22, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Aronson, and the rejection of Claims 1, 11-14, 16-28 and 31-32 under 35 U.S.C. § 102(b) has been overcome. Reconsideration is respectfully requested.

3) **Claims 1, 11-14, 16-17, 19-29 and 31-32 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tsaur et al (hereinafter referred to as "Tsaur"), EP 653,485.**

The Examiner asserted that Tsaur disclose a detergent composition comprising an active, liquid composition, and an oil dispersion encapsulated in a polymer shell, such as polyvinyl alcohol and methyl cellulose. The Examiner also asserted that Tsaur teach liquid detergent compositions containing encapsulated oil dispersions, and adjunct ingredients. However, as will be set forth in detail below, it is submitted that the processes and products defined by Claims 1 and 22, as amended, from which Claims 11-14, 16-17, 19-21, 23-29 and 31-32 depend, are not anticipated by Tsaur. Accordingly, reconsideration is respectfully requested.

The Applicants find no teaching by Tsaur of the processes or products defined by independent Claims 1 and 22, as amended, respectively. That is, there is no teaching by Tsaur of enhanced aesthetics utilizing coated particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. In accordance with the above cited law, Tsaur do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 22, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 22, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Tsaur, and the rejection of Claims 1, 11-14, 16-17, 19-29 and 31-32 under 35 U.S.C. § 102(b) has been overcome. Reconsideration is respectfully requested.

4) **Claims 34 and 36-38 are rejected under 35 U.S.C. §102(e) as being anticipated by Maguire.**

As will be set forth in detail below, it is submitted that the processes and products defined by Claims 34 and 36-38 are not anticipated by Maguire. Accordingly, reconsideration is respectfully requested.

The Applicants find no teaching by Maguire of the processes or products defined by Claims 1 and 36, as amended, respectively. That is, there is no teaching of enhanced aesthetics utilizing coated particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. In accordance with the above cited law, Maguire do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 36, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 36, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Maguire, and the rejection of Claims 34 and 36-38 under 35 U.S.C. § 102(b) has been overcome. Reconsideration is respectfully requested.

5) **Claims 34 and 36-38 are rejected under 35 U.S.C. § 102(b) as being anticipated by Aronson.**

The Examiner asserted that Aronson et al disclose a liquid detergent composition that contains a capsule including a detergent sensitive ingredient. However, as will be set forth in detail below, it is submitted that the processes and products defined by Claims 34 and 36-38 are not anticipated by Aronson. Accordingly, reconsideration is respectfully requested.

The Applicants find no teaching by Aronson of the processes or products defined by independent Claims 1 and 36, as amended, respectively. That is, there is no teaching by Aronson of enhanced aesthetics utilizing particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. In accordance with the above cited law, Aronson do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 36, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 36, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Aronson, and the rejection of Claims 34 and 36-38 under 35 U.S.C. § 102(b) has been overcome. Reconsideration is respectfully requested.

6) **Claims 34 and 36-38 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tsaur.**

The Examiner asserted that Tsaur disclose a detergent composition comprising an active, liquid composition, and an oil dispersion encapsulated in a polymer shell, such as polyvinyl alcohol

and methyl cellulose. The Examiner also asserted that Tsaur teach liquid detergent compositions containing encapsulated oil dispersions, and adjunct ingredients. However, as will be set forth in detail below, it is submitted that the processes and products defined by Claims 34 and 36-38 are not anticipated by Tsaur. Accordingly, reconsideration is respectfully requested.

The Applicants find no teaching by Tsaur of the processes or products defined by independent Claims 1 and 36, as amended, respectively. That is, there is no teaching by Tsaur of enhanced aesthetics utilizing particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. In accordance with the above cited law, Tsaur do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 36, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 36, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Tsaur, and the rejection of Claims 34 and 36-38 under 35 U.S.C. § 102(b) has been overcome. Reconsideration is respectfully requested.

8) **Claims 1, 11, 17-21, 34 and 36-37 are rejected under 35 U.S.C. §102(e) as being anticipated by Werth et al. (hereinafter "Werth") , DE 2,232,131.**

The Examiner asserted that Werth disclose a stable suspension of brittle bodies in a liquid suspension medium prepared by entraining the brittle bodies in a liquid vehicle, whereby the process is used in a preparation of detergent compositions that contained colored ingredients. However, as will be set forth in detail below, it is submitted that the processes and products defined by Claims 1 and 36, as amended, from which Claims 11, 17-21, 34, and 37 depend are not anticipated by Werth. Accordingly, reconsideration is respectfully requested.

The Applicants find no teaching by Werth of the processes or products defined by independent Claims 1 and 36, as amended, respectively. That is, there is no teaching by Werth of enhanced aesthetics utilizing particles and liquid dishwashing detergent compositions having specific color combinations with or without whitening. In accordance with the above cited law, Werth do not disclose each element of the claims under consideration, and therefore, do not anticipate the processes and detergent products of Claims 1 and 36, as amended, respectively, under 35 U.S.C. § 102.

It is therefore submitted that the cleaning processes and detergent products as defined by Claims 1 and 36, as amended, and the corresponding dependent claims are not anticipated by and are patentably distinguishable from Werth, and the rejection of Claims 1, 11, 17-21, 34 and 36-37 under 35 U.S.C. § 102(e) has been overcome. Reconsideration is respectfully requested.

CONCLUSION

It is believed that the above amendments and remarks represent a complete response to the

Examiner's rejections under 35 U.S.C. §§ 112 and 102, placing the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,

Elizabeth Ann Alum, et al

By _____

Kevin L. Waugh
Attorney for Applicant(s)
Registration No. 47,206
(513) 627-7386

January 6, 2004
Cincinnati, Ohio
7482M 2nd Amendment.doc

APPENDIX I

REFERENCE WEB PAGE

http://micro.magnet.fsu.edu/optics/lightandcolor/sources.html

accessed January 5, 2004

PHOTO GALLERY
Optics Timeline
Student Activities
Teacher Resources
Tutorials
Background
Intel Play
Olympus MIC-D
MOVIE GALLERY

Visit the Molecular Expressions Website

MOLECULAR EXPRESSIONS On-Line Store
Galleria
Photo Gallery
Silicon Zoo
Chip Shots
Screen Savers
Museum
Web Resources
Primer
Java Microscopy
Win Wallpaper
Mac Wallpaper
Publications
Custom Photos
Image Use

Sources of Visible Light

Visible light comprises only a tiny portion of the entire electromagnetic spectrum of ra
The wavelengths that the human eye can typically visualize lie between 400 and 700
nanometers in length, as illustrated in Figure 1. However, rather than exhibiting a sin
wavelength, visible light is usually a mixture of wavelengths whose varying compositi
function of the light source from which it is emitted.

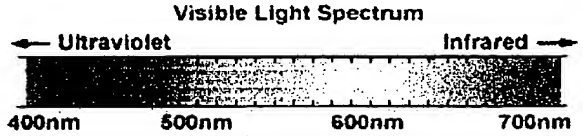

Figure 1

During day-to-day living, most people encounter only a small number of visible light s
When venturing outside, for instance, the vast majority of the light that can be seen i
from the sun, which also emits many other frequencies of radiation that do not fall in
visible range. Inside, however, visible light primarily comes from artificial sources, mo
fluorescent or tungsten devices.

Visible Light Wavelength and Perceived Color

Wavelength Range (Nanometers)	Perceived Color
340-400	Near Ultraviolet (UV; Invisible)
400-430	Violet
430-500	Blue
500-560	Green
560-620	Yellow to Orange
620-700	Orange to Red
Over 700	Near Infrared (IR; Invisible)

Table 1

For each set of wavelengths in the visible spectrum, humans perceive certain colors,
distribution of which is outlined in Table 1. Quantification of color is useful because it
it simpler to differentiate between different hues and shades. It is possible, however,
many different spectral distributions to produce identical color sensations. A yellow c
sensation may be caused by a single wavelength of light, for instance 590 nanomete
may be the result of viewing two wavelengths, such as 590 and 600 nanometers. It is
possible to view the color yellow as a narrow distribution involving all wavelengths be
590 and 600 nanometers. The same array of possibilities exists for all colors in the vi
spectrum.

White light, however, does not appear in Table 1 because it is composed of a mixtur
containing all or most of the colors in the visible spectrum. White light is emitted by a

of sources, such as tungsten lamps, which are frequently labeled **incandesc nt** bec they radiate light when heated by electrical energy. White light may also come from a **fluorescent** source, in which the light is generated as a result of electrical current tra through a charged gas. The greatest source of white light, however, is the sun.

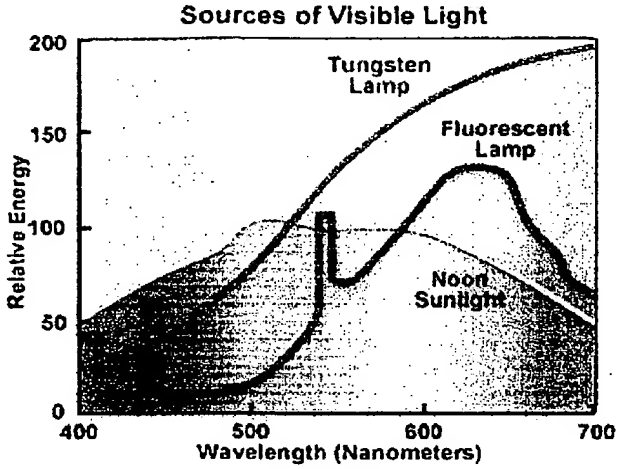

Figure 2

Spectral distribution curves demonstrating the relative amounts of energy versus wa for the three most common sources of white light are illustrated in Figure 2. The red spectrum represents the relative energy of tungsten light over the visible spectrum. A apparent, the energy of tungsten light increases as wavelength increases, which dra affects the average color temperature of the resultant light, especially when it is com that of natural sunlight and fluorescent light. The yellow spectrum represents what hu see with a natural sunlight spectrum sampled at noon. Under normal circumstances would have the greatest amount of energy, but the spectrum has been normalized in compare it to the other two. The blue spectrum illustrates what is seen with fluoresce and contains some notable differences from the tungsten and natural sunlight spectr Several energy peaks are present in the fluorescent light spectrum, which are a resu superposed line spectrum of mercury vapor in a fluorescent lamp.

Interactive Java Tutorial

Color Temperature

Discover how a black body radiator emits a variety of color spectra when heated through a wide temperature range by external energy.

GO! Java

Since different sources of light exhibit different characteristics, the decision of which lighting should be utilized generally depends upon application. For instance, a variet incandescent visible light sources are used for microscopy, indoor, and outdoor lighti of these are based on electronic discharge in a gas such as mercury or the noble ga neon, argon, and xenon. The generation of visible light in these devices relies on the of atoms and ions in the gas with the current that is discharged from the electrodes a ends of the bulbs. This concept is illustrated in Figure 3 by means of a common fluor lamp.

Fluorescent Mercury Vapor Lamp

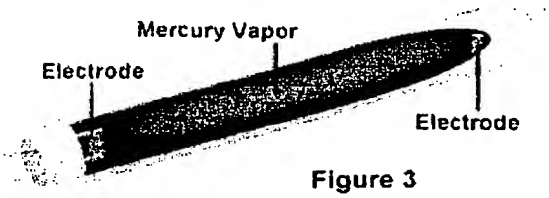

Figure 3

In this example, the glass tube of a fluorescent lamp is coated on the inside with pho and the tube is filled with mercury vapor at very low pressure. An electric current is a the electrodes at the ends of the tube, producing a stream of electrons. When the ele collide with mercury atoms, they excite electrons in the atoms to higher energy state: energy is then released in the form of ultraviolet radiation when the mercury atoms re the ground state. The ultraviolet radiation energizes the internal phosphor coating ca to emit the bright white light that is characteristic of fluorescent lights.

A unique feature of non-incandescent visible light sources is that the wavelengths th generate are often concentrated in narrow bands called **line spectra**. Though they d produce a continuous spectrum, they are still useful in certain applications. For exam sodium-vapor lamps used in street lighting are an almost exclusively single wavelen source of non-incandescent visible light. These lamps emit a very intense yellow ligh 95 percent of which is composed of 589 nanometer light.

It is possible, however, to design gas-discharge lamps that will emit a moderately co spectrum in addition to the line spectra inherent in most of these lamps. The most co method is to coat the inside surface of the tube with phosphor particles, as in the exa common fluorescent lamp. The phosphor particles absorb radiation emitted by the gl gas and convert it into light ranging in color from red to blue.

Under normal circumstances most people are not able to discern the mixture of a lin and a continuous spectrum. However, some objects reflect unusual colors in such ar environment, particularly under fluorescent light. This is why clothing purchased in a illuminated by fluorescent light often appears a slightly different color under natural s or continuous tungsten illumination.

The laser is another important source of visible light, which is becoming increasingly for a variety of purposes. Lasers are currently used in applications ranging from com readers to measuring and surgical devices. The word laser is an acronym that stand: Light Amplification by the Stimulated Emission of Radiation. Thus, as their name imp lasers do not actually generate light, but amplify it.

Ruby Laser

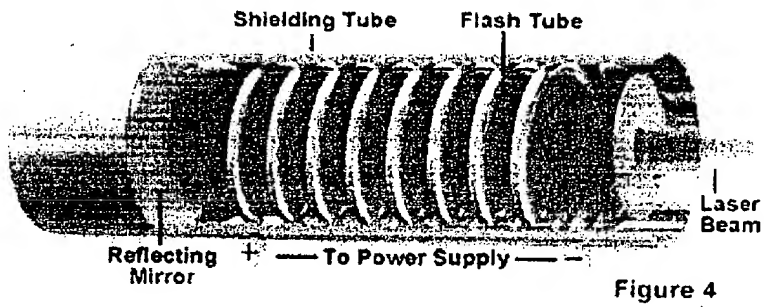

Figure 4

Lasers are unique in that they emit a continuous beam of light made up of a single wavelength that exits in a single phase, commonly termed **coherent light**. The wave of light emitted by a laser depends upon the material from which the laser crystal or g composed. The laser illustrated in Figure 4 is a ruby laser that emits red light when a the crystal are excited with a flash tube. The light produced in the gaseous mixture is bounced back and forth between the two mirrored surfaces at the ends of the laser tu steadily increasing in energy. When a critical threshold is reached, light is emitted frc slightly transparent mirror on one end of the laser tube.

Interactive Java Tutorial

Laser Light Sources

Explore how a ruby laser is excited by a xenon flash tube to produce coherent red light.

GO!

In conclusion, there are a wide variety of illumination sources that exist, but humans generally rely on only a few throughout their everyday lives. During daylight hours the serves as the main source of illumination outdoors, while fluorescent and tungst n lig are generally relied upon indoors and during the evening hours. These three primary sources all have different properties and spectral characteristics, but their maximum intensities all fall within the visible light range. Extremely adaptable, the human brain capable of automatically adjusting to different sources of light and, therefore, the colc most objects appear almost identical when viewed under any type of illumination.

Contributing Authors

Mortimer Abramowitz - Olympus America, Inc., Two Corporate Center Drive., Melville, New York, 11747.

Shannon H. Neaves and Michael W. Davidson - National High Magnetic Field Laboratory, 1800 East Pau The Florida State University, Tallahassee, Florida, 32310.

BACK TO LIGHT AND COLOR

Questions or comments? Send us an email.

This website is maintained by our
Graphics & Web Programming Team
in collaboration with Optical Microscopy at the
National High Magnetic Field Laboratory.

Last modification: Thursday, Mar 06, 2003 at 06:24 AM

Access Count Since March 10, 2003: 4376

Visit the websites of our partners in education:

http://micro.magnet.fsu.edu/optics/lightandcolor/sources.html 01/05/2004